

REMARKS

Summary of the Office Action

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by European Patent EP 0885653 A2 to Friedrich et al. ("*Friedrich*").

Claims 2-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by European Patent EP 1016777 A2 to Jobson et al. ("*Jobson*").

Claims 6-8, 11-12, 14-16, 20, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jobson* in further view of U.S. Patent 6,409,864 B1 to Choi ("*Choi*").

Claims 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jobson* and *Choi* in further view of U.S. Patent 3,679,062 to Burkhardt ("*Burkhardt*").

Claims 9-10 and 22-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jobson* in further view of Japanese Patent JP 2002-276347 to Schumann ("*Schumann*").

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Friedrich* in further view of *Jobson*.

Summary of the Response to the Office Action

Applicants have amended claims 1-3 and 12. Applicants have canceled claim 11. Accordingly, claims 1-10, 12, and 14-24 are pending.

The Rejection under 35 U.S.C. § 102(b)

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by *Friedrich*.
Claims 2-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Jobson*. Applicants

traverse these rejections on the grounds that the cited references fail to disclose every element of each of claims 1-3, as amended.

As pointed out in MPEP § 2131, “[t]o anticipate a claim, the reference must teach every element of the claim.” Thus, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 2 U.S.P.Q2d 1051, 1053 (Fed. Cir. 1987). For the reasons discussed below, the cited reference *Friedrich* fails to teach every element of amended independent claim 1, and the cited reference *Jobson* fails to teach every element of each of amended independent claims 2 and 3. Therefore, neither these claims, nor the claims that depend therefrom is not anticipated by *Friedrich*. Accordingly, Applicants respectfully request the rejections of claims 1-3 and the claims that depend therefrom be withdrawn.

Claim 1, as amended, recites a combination including a heat transfer material arranged such that both the fluids flow mainly through a gap portion in the bellows section of the heat transfer material wherein the cross sectional area of the gap portion changes along the flow path of the fluids. Applicants submit that *Friedrich* fails to disclose this feature. As is clear from Figure 1 of *Friedrich*, the cross sectional area of the corrugated portions remains constant along the flow paths. As such, Applicants respectfully assert that amended independent claim 1 is allowable. Further, Applicants respectfully assert that dependent claim 21 is allowable at least because of its dependency from claim 1 and the reasons set forth above.

Claims 2 and 3, as amended, recite combinations including “at least one air-permeable structure, different from the heat transfer material, provided in the gap portion of the bellows

section of the heat transfer material, wherein a functional material selected from the group of an adsorbent and a heat storage material is provided in the gap portion of the bellows section of the heat transfer material as the air-permeable structure, different from the heat transfer material, or supported on the air-permeable structure, different from the heat transfer material.” Prior to this most recent amendment, claims 2 and 3 recited combinations including a functional material provided in the gap portion of the bellows section of the heat transfer material separately of the heat transfer material. The Office Action alleges that paragraph [0009] of *Jobson* discloses this feature. Applicants disagree with the assertion that *Jobson* discloses a functional material provided *separately* of the heat transfer material. However, Applicants have amended claims 2 and 3, in part by incorporating the features of claim 11, to clarify the feature. At most, the cited portion of *Jobson* discloses a catalyst and an impurity-adsorbing/desorbing agent applied to the carrier walls. The carrier walls are not structures different from the heat transfer material. *See Jobson*, paragraph [0011]. Thus, *Jobson* fails to disclose a functional material (either an adsorbent or a heat storage material) provided as a structure, or on a structure, different from the heat transfer material. Moreover, Applicants respectfully submit that *Choi* does not cure these deficiencies.

The cited references fail to teach each and every element of independent claims 2 and 3, as amended. As such, Applicants respectfully assert that amended independent claims 2 and 3 are allowable. Further, Applicants respectfully assert that dependent claims 4-8, 12, 14-20, and 24 are allowable at least because of their respective dependencies from claims 2 and 3 and the reasons set forth above.

The Rejections under 35 U.S.C. § 103(a) – Dependent claims 6-8, 11-12, 14-20, and 24

Dependent claims 6-8, 11-12, 14-16, 20, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jobson* in further view of *Choi*. Dependent claims 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jobson* and *Choi* in further view of *Burkhart*. Applicants respectfully assert that dependent claims 6-8, 12, 14-20, and 24 are allowable at least because of their respective dependencies from claims 2 and 3, which are allowable for the reasons discussed above. *Choi* and *Burkhart* fail to overcome the deficiencies of *Jobson*, and thus, the combination fails to teach or suggest all the limitations of amended independent claims 2 and 3.

With further respect to dependent claim 16, Applicants respectfully submit that the cited references fail to teach or suggest all the limitations of this claim. Claim 16 recites a combination including a heat transfer material wherein “the surface of the heat transfer material is partly provided with one or a plurality of openings which are closed at the circumference thereof to form a fluid forwarding space portion.” Reference is made to Figure 21(b) and page 46, line 11 – page 47, line 2 which show an exemplary embodiment of this feature. The Office Action alleges that elements 9 and 10 of *Jobson* are openings as claimed. Applicants respectfully disagree. As is clear from Figure 2 of *Jobson*, reversing chambers 9 and 10 are formed by the void between a casing and a carrier strip bundle. No openings, which are closed at the circumference, are provided in a surface of any structure that could be construed as the heat transfer material. For at least this additional reason, Applicants respectfully assert that claim 16 is allowable.

With further respect to claim 24, the Office Action alleges that “*Choi* discloses a filtrating function allowing gas permeation and particle catch, which is capable of acting as a spacer.” The Office Action cites to col. 1, l. 62 – col. 2, l. 32 of *Choi* for support. Without addressing whether such a disclosure would anticipate the features of claim 24, Applicants respectfully disagree that the cited section of *Choi* discloses that which the Office Action alleges. At most, *Choi* discloses inserts arranged to enhance pleated filter medium spacing. However, *Choi* fails to disclose that these inserts are a filtrating function allowing gas permeation and particle catch. Accordingly, Applicants respectfully assert that the cited references fail to teach or suggest all elements of claim 24.

The Rejections under 35 U.S.C. § 103(a) – Independent claims 9 and 10

Claims 9-10 and 22-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jobson* in further view of *Schumann*. Applicants respectfully traverse the rejections for at least the following reasons.

With respect to independent claims 9 and 10, Applicants submit that the Office Action has failed to show *prima facie* obviousness. As the Office Action concedes, *Jobson* and *Schumann* fail to disclose a heat radiating plate. The Office Action alleges that “[i]t would have been obvious . . . to use a heat radiating plate instead of a cooling device, since applicant has not disclosed that a heat radiating plate solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with or without a heat radiating plate.” Applicants respectfully disagree. Claims 9 and 10 are directed towards a “radiation heater.” (See preamble of claim.) As such, the heat radiating plate serves the purpose of “radiating” heat

from the heat exchanger to the exterior. Thus, the performance of Applicant's invention is substantially dependent on the presence of a heat radiating plate. By contrast, *Schumann* is concerned with efficiently treating the exhaust gas of an internal combustion engine. *Schumann*, Title and Abstract. Thus, Applicants respectfully assert that it would not be obvious to use a radiation plate as claimed especially in view of none of the applied references using radiation. "[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___; 127 S.Ct. 1727, 1731 (2007). For the reasons above, Applicants submit that there is no reason that would have prompted one of ordinary skill in the art to use a heat radiating plate instead of a cooling device. As such, Applicants respectfully assert that the Office Action has failed to show *prima facie* obviousness.

Further, Applicants submit that claims 22 and 23 are allowable at least because of their respective dependencies from claims 9 and 10.

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Friedrich* in further view of *Jobson*. Applicants respectfully assert that dependent claim 21 is allowable at least because of its dependency from claim 1, which is allowable for the reasons discussed above. *Jobson* fails to overcome the deficiencies of *Friedrich*, and thus, the combination fails to teach or suggest all the limitations of amended independent claim 1.

CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration of the application and the timely allowance of the pending claims. Should the Examiner feel that there

are any issues outstanding after consideration of the response; the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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